

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method of testing digital graphics data, the method comprising the steps of:

providing digital graphics data ~~of predetermined type~~ having an expected characteristic value, to a video graphics output port of a graphics system controller under test and which is coupled to a computer via a bus;

receiving, at a test apparatus, the digital graphics data from [[the]] a graphics output port of the graphics controller under test;

calculating at the test apparatus, a ~~calculated~~ characteristic value that is based upon the digital graphics data; and

providing sending the calculated characteristic from a serial data port of the test apparatus to a serial data interface of the graphics system controller.

Claim 2 (original): The method of claim 1, wherein the expected characteristic is a calculated value based upon the predetermined type of digital graphics data.

Claim 3 (original): The method of claim 2, wherein the predetermined type of digital graphics data includes at least one of a red, green, and blue color component.

Claim 4 (original): The method of claim 2, wherein the predetermined type of digital graphics data includes a horizontal synchronization component.

Claim 5 (original): The method of claim 4, wherein the predetermined type of digital graphics data includes at least one of a red, green, and blue color component.

Claim 6 (original): The method of claim 2, wherein the predetermined type of digital graphics data includes a digital graphics vertical synchronization component.

Claim 7 (original): The method of claim 2, wherein the expected characteristic is a circular redundancy check (CRC) value.

Claim 8 (original): The method of claim 1, wherein the predetermined type of digital graphics data is selectable.

Claim 9 (currently amended): The method of claim 1, wherein

the step of ~~receiving~~ providing the calculated characteristic from the test apparatus to a serial interface includes ~~receiving~~ providing the calculated characteristic to the computer; the graphics data at a real-time graphics rate; and

the steps of calculating and providing are performed in real time with respect to the step of receiving step of comparing the calculated characteristic to the expected characteristic by the graphics controller is replaced by the step of:

comparing the calculated characteristic to the expected characteristic by at least one of: the computer and the graphics controller.

Claim 10 (currently amended): The method of claim 1, wherein

the step of receiving, at a test apparatus includes the step of: receiving at a test apparatus, the graphics data at a rate greater than 100 MHz; and

the steps of calculating at the test apparatus, and the step of providing the calculated characteristic, are performed in real time with respect to the step of receiving at a test apparatus.

Claim 11 (original): The method of claim 1, wherein the serial interface is an I2C-type serial interface.

Claim 12 (original): The method of claim 1, wherein the graphics output port includes an output port for a flat panel display.

Claim 13 (original): The method of claim 1, wherein the serial interface is associated with the graphics output port.

Claim 14 (currently amended): A method of testing digital graphics data, the method comprising the steps of:

receiving digital graphics data at a graphics port of graphics test apparatus, said graphics port having a serial data interface;

determining a characteristic value upon the reception of the digital graphics data at said graphics test apparatus; and

providing transferring the characteristic value from the graphics test apparatus to a graphics controller over [[a]] the serial data interface of the graphics port of the graphics test apparatus.

Claim 15 (original): The method of claim 14, wherein the step of providing includes the graphics port being part of a digital graphics interconnect port.

Claim 16 (original): The method of claim 15, wherein the digital graphics interconnect is based on a Digital Flat Panel interconnect standard interconnect.

Claim 17 (original): The method of claim 14, wherein the steps of determining and providing occur in real-time with respect to the step of receiving.

Claim 18 (original): The method of claim 17, wherein the step of receiving includes receiving graphics data at a clock rate of at least 100 MHz.

Claim 19 (currently amended): An apparatus for testing digital graphics data, the system comprising:

a connector to interface to a digital graphics ~~protocol~~ port of a graphics controller;

a graphics data analyzer module having an input coupled to the connector, and an output, said graphics data analyzer being capable of calculating a value from digital graphics data it receives through the connector; and

a serial bus interface control module having an input coupled to the output of the graphics data analyzer module, and a serial data port coupled to the connector, said serial bus interface control module being capable of sending serial data from said serial data port.

Claim 20 (original): The system of claim 19, wherein the serial data port is coupled to the connector to transmit serial data based upon the digital graphics protocol.

Claim 21 (original): The system of claim 20, wherein the digital graphics protocol is a Digital Flat Panel standard.

Claim 22 (original): The system of claim 19, further comprising a power supply terminal to receive power from a peripheral component interface (PCI) bus.

Claim 23 (original): A method of testing digital graphics data, the method comprising:

monitoring a serial data node of a digital graphics interface to receive a first test indicator from a graphics controller;

monitoring a graphics data node to receive a first graphics data from the graphics controller;

determining a first test result based upon the first test indicator and the first graphics data in response to receiving a first test indicator and the first graphics data; and

sending the first graphics data to the serial data node in response to determining the first test result.

Claim 24 (original): The method of claim 23 further comprising the steps of:

monitoring the serial data node of the digital graphics interface to receive a second test indicator from the graphics controller;

monitoring the graphics data node to receive a second graphics data from the graphics controller;

determining a second test result based upon the second test indicator and the second graphics data in response to receiving a second test indicator and the second graphics data; and sending the second graphics data to the serial data node in response to determining the second test result.